

Notice of Allowability

Application No.

10/774,591

Examiner

Corey M. Broussard

Applicant(s)

MIYAMOTO ET AL.

Art Unit

2835

gm

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to application filed 2/10/2004.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☒ The drawings filed on 10 February 2004 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>2-04, 5-05, 6-05</u> | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

A. Va

ANATOLY VORTMAN
PRIMARY EXAMINER

DETAILED ACTION

Allowable Subject Matter

1. Claims 1-20 allowed.
2. The following is a statement of reasons for the indication of allowable subject matter: The allowability resides in the overall structure of the device as recited in independent apparatus claims 1, 2, 3, 10 and at least in part, because claim 1 recites: "...a computer for output used to output said management information managed by said processor for management ... said processor for management is arranged on the side face of said first disk drive box body so as not to prevent the intervals for ventilation between the plural disk drives within said first disk drive box body; said computer for output is arranged on the side face of said second disk drive box body so as to be pulled out such that no intervals for ventilation between the plural disk drives within said second disk drive box body are prevented...", claim 2, recites: "...a computer for output used to output said management information managed by said processor for management ... said processor for management is arranged on the side face of said first disk drive box body so as not to prevent the intervals for ventilation between the plural disk drives within said first disk drive box body; said computer for output is rotatably arranged on the rear face side of said front door so as not to prevent the intervals for ventilation between said plural disk adapter boards...", claim 3 recites: "...a computer for output used to output said management information managed by said processor for management ... said computer for output is pulled out of said disk array

box body...”, and claim 10 recites: “...computer for output used to output said management information managed by said processor for management... said computer for output is rotatably arranged on the rear face side of said front door...”.

The aforementioned limitations in combination with all remaining limitations of claims 1, 2, 3, and 10 respectively are believed to render said claims 1, 2, 3, 10 and all claims dependent therefrom patentable over the art of record.

The closest reference to the present invention is believed to be Kimura et al. (PN 5,414,591).

Kimura teaches wherein plural disk drives for storing data are spaced at intervals for ventilation and are arranged in a matrix shape, but did not disclose “a computer for output used to output said management information managed by said processor for management; said processor for management is arranged on the side face of said first disk drive box body so as not to prevent the intervals for ventilation between the plural disk drives within said first disk drive box body; said computer for output is arranged on the side face of said second disk drive box body so as to be pulled out such that no intervals for ventilation between the plural disk drives within said second disk drive box body are prevented” or “a computer for output used to output said management information managed by said processor for management; said processor for management is arranged on the side face of said first disk drive box body so as not to prevent the intervals for ventilation between the plural disk drives within said first disk drive box body; said computer for output is rotatably arranged on the rear face side of said front door so as not to prevent the intervals for ventilation between said plural disk

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adapter boards" or "a computer for output used to output said management information managed by said processor for management; said computer for output is pulled out of said disk array box body" or "computer for output used to output said management information managed by said processor for management; said computer for output is rotatably arranged on the rear face side of said front door".

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Melane et al. (PN 6,129,434) teaching an electronic support enclosure similar to the enclosure of the instant application. Lee et al. (US Pub 2002/0196601) teaching of a disk drive array with a processor for management. Papa (PN 6,175,490), Diebel (PN 6,041,851), Melane (PN 6,039,414), Akiyama (JP 07261874), and Gill (PN 5,388,032) demonstrating alternative disk array designs.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Corey M. Broussard whose telephone number is 571 272 2799. The examiner can normally be reached on 7:30-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on 571 272 2092. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read 'A. Vortman', with a long horizontal flourish extending to the right.

**ANATOLY VORTMAN
PRIMARY EXAMINER**